

Remarks

The Examiner noticed an error in the Information Disclosure Statement, objected to the specification, and rejected claims 1–38. The error in the Information Disclosure Statement has been corrected. The specification has been amended. Claims 11, 16, 21, and 32 have been amended. The rejection is traversed. Claims 1–38 remain in the application.

Information Disclosure Statement

The Examiner correctly recognized that there was a typographical error in Citation 2 listed on the originally filed Information Disclosure Statement. The correct patent number for Citation 2 is 6,523,672. Applicant's attorney apologizes for the error. Because applicant is submitting other references in an Information Disclosure Statement appended to this response, he is including the corrected Citation 2 to the submission.

Specification

The Examiner objected to the specification because the section headings did not appear in uppercase. Applicant has amended the section headings to be in uppercase. But applicant's attorney has always considered the language of 37 CFR 1.77 to state a preference and not a requirement, as indicated by the use of the verb "should" rather than "must." MPEP 601, in Section I. GUIDELINES FOR DRAFTING A NON-PROVISIONAL PATENT APPLICATION UNDER 35 U.S.C. 111(a), states that the "guidelines illustrate the **preferred** layout and content" and that the "guidelines are **suggested** for the applicant's use." (emphasis added) Applicant's attorney has, in fact, filed many patent applications with section headings not in uppercase—without objection. Nevertheless, applicant's attorney thanks the Examiner for reminding him of

the preference for uppercase section headings and has already begun to adopt the practice in his most recent filings.

Claim Rejections

The Examiner rejected claim 16 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. In particular, the Examiner contends that claim 16 doesn't further limit claim 15 because the means for raising and lowering the roller-top belt and "the drive to raise and lower the roller-top belt" are the same thing. But the Examiner misreads claim 16. Claim 16 doesn't recite a "drive to raise and lower the roller-top belt." The drive is defined in base claim 11 as moving the belt bidirectionally. In claim 16, the prepositional phrase "to raise the roller-top belt ... to move the roller-top belt" does not modify "the drive"; rather, the prepositional phrase modifies "is coordinated" to indicate that the means for raising and lowering is coordinated with the drive (as defined in claim 11) in such a way as to raise the roller-top belt when the drive is moving the roller-top belt in a direction to divert articles from the main conveying path. To clarify this, applicant has amended claims 11 and 16.

Claims 1 and 2 were rejected under 35 U.S.C. 102(b) as being anticipated by US 6,568,522 (Boelaars). In his rejection, the Examiner stated that Boelaars discloses a similar conveyor system comprising a main conveyor (40) and a cross conveyor (20) intersecting the main conveyor and including a roller-top belt and a bidirectional drive (56). MPEP 2131 provides: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Boelaars does not describe all the elements of the claim. For example, Boelaars's accumulation table (34), which merely handles the overflow from the main conveyor, is not the main conveyor. The main conveyor line (12) of Boelaars defines the main conveying path in the conveying direction (16). (col. 2, ll. 33–37; FIG. 1) The accumulation table roller axes (72) and the transfer belt roller axes (47) of Boelaars are both parallel to the direction of the main conveying path (16). Furthermore, there is no intersection of a main conveyor with a cross conveyor having a drive advancing the cross conveyor along a discharge path generally perpendicular to the main conveying path. The transfer conveyor (20) and the accumulation table (34) in FIGS. 1 and 2 do not intersect as that word is commonly defined. According to the Merriam-Webster OnLine Dictionary (entry attached as Exhibit A), **intersect** is defined as: (transitive) to pierce or divide by passing through or across : to cross; (intransitive) 1 : to meet and cross at a point, 2 : to share a common area : overlap. The accumulation table (34) and the transfer conveyor (20) of Boelaars abut, but do not cross and, consequently, do not intersect. With regard to claim 2, the drive (56) of Boelaars is not bidirectional; it drives the belt (42) unidirectionally in the direction of the arrow (16). In fact, if the drive advanced the belt (42) opposite to the direction of the arrow (16), conveyed articles would be directed off the side of the belt (42) opposite the accumulation table (34) by the guide rail (26) or wedged between the guide rail and a side rail opposite the accumulation table. (FIG. 2) Therefore, the 35 U.S.C. 102(b) rejection of claims 1 and 2 is unsupported by the art and should be withdrawn.

The Examiner rejected claims 3–6, 11–14, 18, 21, 22, 27–32, 36, and 37 under 35 U.S.C. 103(a) as being unpatentable over Boelaars in view of US 4,598,815 (Adama). According to the Examiner, Boelaars discloses all the limitations of the claims, but does not expressly disclose the main conveyor comprising a series of endless belt loops along the main conveying path separated

by a gap, the main conveyor belt defining a conveying plane along a major portion of the main conveying path and disposed below the cross conveyor along a minor portion. Furthermore, the Examiner contends that Adama discloses those limitations missing from Boelaars. MPEP 2143.03 provides: “To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA 1974). “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988).

Because, as applicant has pointed out in his discussion of the 35 U.S.C. 102(b) rejection, Boelaars does not disclose all the limitations of independent claim 1 and, furthermore, Adama does not supply all the missing limitations, the Examiner has not established the *prima facie* obviousness of dependent claims 3–6, and their rejection should be withdrawn.

Boelaars and Adama, in combination, do not disclose a cross conveyor disposed in a gap between an upstream conveyor and a downstream article receiver, wherein the cross conveyor includes: a roller-top belt having a plurality of rollers having axles for rotation of the rollers about axes generally perpendicular to a main conveying path and a drive engaging the roller-top belt to selectively stop and advance the roller-top belt bidirectionally across the main conveying path along the gap. Consequently, the obviousness rejection of independent claim 11 and its dependent claims 12–14 and 18 is unsupported by the art and should be withdrawn.

Boelaars and Adama, in combination, do not disclose a cross conveyor disposed in a gap and including a roller-top belt having rollers with axles for rotation of the rollers about axes generally perpendicular to the main conveying path. Consequently, the obviousness rejection of independent claim 21 and its dependent claims 22, 27, and 28 is unsupported by the art and should be withdrawn.

Boelaars and Adama, in combination, do not disclose one or more cross conveyors intersecting a main conveying path at one or more gaps, wherein each cross conveyor includes a roller-top belt having a plurality of rollers arranged to rotate freely to roll articles received from a main conveyor across the gap in the direction of the main conveying path and a drive engaging the roller-top belt to advance the roller-top belt across the main conveying path to divert articles from the main conveying path. Consequently, the obviousness rejection of independent claim 29 and its dependent claims 30 and 31 is unsupported by the art and should be withdrawn.

Boelaars and Adama, in combination, do not disclose one or more cross conveyors intersecting a main conveying path at one or more gaps, wherein each cross conveyor includes: (a) a roller-top belt capable of advancing in at least one direction across the main conveying path and having a plurality of rollers arranged to receive conveyed articles in the gap from a main conveyor and to rotate freely in the direction of the main conveying path; and (b) means for raising and lowering the roller-top belt between a first position wherein a conveyed article is supported by both the roller-top belt and the main conveyor and a second higher position lifting a conveyed article supported on the roller-top belt out of contact with the main conveyor. Consequently, the obviousness rejection of independent claim 32, as currently amended, and its dependent claim 36 is unsupported by the art and should be withdrawn.

Boelaars and Adama, in combination, do not disclose at least one cross conveyor intersecting a main conveying path at a gap, wherein each cross conveyor includes: (a) a roller-top belt having a plurality of rollers arranged to rotate freely to roll articles received from the main conveyor across the upstream end of the gap in the direction of the main conveying path; and (b) a drive engaging the roller-top belt to selectively stop the roller-top belt to allow a conveyed article to ride across the roller-top belt on the rollers past the gap along the main

conveying path, advance the belt in a first cross direction along a discharge path diverting a conveyed article from the main conveying path to a first side of the conveying path, and advance the belt in an opposite second cross direction along the discharge path diverting a conveyed article from the main conveying path to an opposite second side of the conveying path. Consequently, the obviousness rejection of independent claim 37 is unsupported by the art and should be withdrawn.

The Examiner rejected claims 7, 8, and 20 under 35 U.S.C. 103(a) as being unpatentable over Boelaars in view of Adama and further in view of US 5,238,099 (Schroeder et al.). But Schroeder et al. fails to disclose the limitations of independent claims 1 and 11 missing in Boelaars and Adama. Consequently, the obviousness rejection of dependent claims 7, 8, and 20 is unsupported by the art and should be withdrawn.

The Examiner rejected claims 10, 19, 23, and 38 under 35 U.S.C. 103(a) as being unpatentable over Boelaars in view of Adama and further in view of US 5,984,078 (Bonnet). But Bonnet fails to disclose the limitations of independent claims 1, 11, 21, and 37 missing in Boelaars and Adama. Consequently, the obviousness rejection of dependent claims 10, 19, 23, and 38 is unsupported by the art and should be withdrawn.

The Examiner rejected claims 9, 15–17, 24–26, and 33–35 under 35 U.S.C. 103(a) as being unpatentable over Boelaars in view of Adama and further in view of US 3,921,789 (Goldinger) and US 6,318,544 (O'Connor). But neither Goldinger nor O'Connor discloses the limitations of independent claims 1, 11, 21, and 32 missing in Boelaars and Adama. Consequently, the obviousness rejection of dependent claims 9, 15–17, 24–26, and 33–35 is unsupported by the art and should be withdrawn.

Applicant has amended claim 21 to correct a typographical error (“form” should have read “from”).

Applicant respectfully requests reconsideration of the rejection of the claims in view of these remarks and amendments and allowance of the application.

This amendment is being sent within three months of the Office Action so no extension of time petition fee should be due. Authorization to charge the fee for consideration of the Information Disclosure Statement and any other fees deemed necessary for consideration of this response to Deposit Account No. 12-0090 is hereby given. If the Examiner thinks a telephone conference would expedite the prosecution of this application, he is invited to call the undersigned attorney.

Respectfully submitted,
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One entry found for **intersect**.

Main Entry: **in-ter-sect**

Pronunciation: "in-t&r-'sekt

Function: *verb*

Etymology: Latin *intersectus*, past participle of *intersecare*, from *inter-* + *secare* to cut -- more at [SAW](#)

transitive senses : to pierce or divide by passing through or across : **CROSS**

intransitive senses

1 : to meet and cross at a point

2 : to share a common area : **OVERLAP**

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